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For Agency Use Only

Application Number

WY00_____

RECEIVED
JUN 09 2014
WATER QUALITY DIVISION
WYOMING

Date Received:

_____
(mo/day/yr)

WYOMING POLLUTANT DISCHARGE ELIMINATION SYSTEM
APPLICATION FOR PERMIT TO SURFACE DISCHARGE PRODUCED WATER FROM OIL AND GAS PRODUCTION UNIT DISCHARGES

Revised June 12, 2013

PLEASE PRINT OR TYPE ***(Submission of illegible materials will results in return of the application to the applicant)***

WY0095508

1. The discharging facility will produce:

Oil xx☐ Oil and natural gas ☐ Natural gas ☐

Check the box corresponding to the type of application being applied for:
xx☐ New Permit

☐ Permit Renewal. Permit number _____ Expiration Date: _____

☐ Permit Modification. Permit number _____ Expiration Date: _____

(For permit modification, please attach letter explaining modifications requested.)

2. **Company, Contact Name, mailing address, e-mail address, and telephone number** of the individual or company which owns the facility producing the discharge, and the person (consultant) responsible for permit submission.

Company Contact Name William "Bill" Eucker III	*Consultant Contact Name*
Company Name Millennium Oil & Gas, LLc.	*Company Name*
Mailing Address 975 Grant St.	
City, State, and Zip Code Denver, CO 80203	*City, State, and Zip Code*
Telephone Number (303) 813-9303 *Cell (303) 908-172*	*Telephone Number*
E-Mail Address billeucker @aol.com	*E-Mail Address*

Status of applicant as owner, operator or both _____ both _____

Status of applicant as federal, state, private or public ____ Private _____

3. Name of the facility (lease, tank battery #, etc.) producing the discharge (this is the facility name that will appear on the WYPDES permit. It is not necessary to name every well contributing to this facility's discharge in this section)

___**ROTH Fee**_____

4. Name(s) and mailing address(es) of owner(s) of the surface rights on whose land the discharge occurs (in cases where the land is owned by the state or federal government but surface rights are leased to a private individual, provide lessee's name and address)

Landowner #1 Name Patrick A Miller	*Landowner #2 Name*
Mailing Address 795 V-5 Hilltop Road	*Mailing Address*
City, State, and Zip Code Lance Creek, WY 82222	*City, State, and Zip Code*
Landowner #3 Name	*Landowner #4 Name*
Mailing Address	*Mailing Address*
City, State, and Zip Code	*City, State, and Zip Code*

(additional spaces may be added as necessary)

5. Provide outfall information in Table 1 below.

TABLE 1. Outfall information

Discharge Point (Outfall) #	Immediate Receiving Stream	Mainstem* (Nearest Perennial Water)	Distance from outfall to main stem (stream miles) *	Quarter/ Quarter	Section	Township	Range	Latitude (NAD 83, decimal degree format, accuracy to nearest 5 decimal places)	Longitude (NAD 83, decimal degree format, accuracy to nearest 5 decimal places)	County
001	none	Little Lightning Creek**	2.0	SESE	25	35N	66W	42.975486	-104.7194075	Niobrara
002										
003										
004										
005										

** The mainstem is the closest perennial water (class 2). Stream distance from the outfall to the mainstem should be measured in stream miles versus as "the crow flies".*

** Note The Little Lightning Creek is not a Perennial stream in this area. The stream flows intermittently e.g. after long rains. There are some fresh water springs feeding This drainage but much of the flow is underground.

6. Describe measures to prevent access to the skimming ponds by large grazing animals. __Rancher approved Stock fence will surround lined and netted pit_____

_____

7. Describe measures employed to deter/exclude migratory birds from the skimming ponds.

_____bird netting will prevent bird access_____

_____

8. Attach a description and clear, legible, detailed topographic map of the discharging facility extending one mile beyond the property boundaries of the source. Include the following:

   a. A legend
   b. Discharge points (outfalls)
   c. Immediate receiving streams
   d. Section, Township, and Range information
   e. Well locations
   f. Water flow lines

9. Attach a site diagram. Include the following:
   a. Water flow lines
   b. Treater units
   c. Skimming tanks
   d. Skimming Ponds
   e. Stock tanks

   If any of the above items in 8 or 9 are not applicable please indicate in the description and include a brief explanation as to why the items are not applicable)

10. Describe the control measures that will be implemented to achieve water quality standards and effluent limits. If proposing to utilize a treatment process, provide a description of the treatment process. **Include list of chemicals** used and provide a Material Safety Data Sheet (MSDS) for each chemical. ___1) De-emulsifier (see attachment) This Chemical is a solvent Used pre-treater

_____

11. Describe the control measures that will be implemented to prevent significant damage to or erosion of the receiving water channel at the point of discharge. _____max_outfall is est at 4.2 Bbls /Hr, approx 3 gal/min. _

    _Not enough volume or turbulence for any measurable erosion, Will evaluate and Might add some stone.

12. Provide the results of a water analyses for a sample collected from a location representative of the quality of water being proposed for discharge for the parameters listed below, in Table 2.

    The analyses must be conducted in accordance with approved EPA test procedures (40 CFR Part 136). Include a signed copy of your lab report that includes the following:

    a. detection limits
    b. results of each of the chemical parameters at the chemical state given below
    c. quarter/quarter, section, township and range of the sample collection location
    d. Time and date of sample collection
    e. Time and date of analysis for each parameter
    f. Detection limit for each parameter as achieved by the laboratory.

TABLE 2

PARAMETER	REQUIRED DETECTION LIMIT and Required Units	STANDARD OR LIMIT*	SAMPLE RESULTS (Also submit lab results with application)
Aluminum, Dissolved	**50 ug/L**	750 ug/L	ND
Arsenic, Total Recoverable	**1 ug/L**	150 ug/L	ND
Barium, Total Recoverable (*New Facilities*	**100 µg/L**	2000 ug/L	1600
Boron, Dissolved (*New Facilities Only*)	**100 ug/L**	5000 ug/L	1800
Cadmium, Dissolved	**5 ug/L**	0.25 ug/L (hardness dep)	ND
Calcium, Dissolved	**50 ug/L, report as mg/L**		215
Chloride – Technology Based	**5 mg/L**	2000 mg/L	950
Chloride, For Class 2A and 2B Waters	**5 mg/L**	230 mg/L	na
Chromium, Dissolved (III)	**1ug/L**	74.1 ug/L (hardness	ND
Copper, Dissolved	**10 ug/L**	9 ug/L (hardness	ND
Fluoride, Dissolved (*New Facilities Only*)	**100 ug/L**	4,000 ug/L	1.4
Hardness (CaCO3) mg/L	**10 mg/L as $CaCO_3$**	(for metals analyses)	715
Iron, Dissolved	**50 ug/L**	1000 ug/L	ND
Iron, Dissolved, for Class 2A and 2AB waters	**50 ug/L**	300 ug/L	na
Lead, Dissolved	**2 ug/L**	2.5 ug/L (hardness dep)	ND
Magnesium, Dissolved	**100 ug/L, report as mg/L**		43
Manganese, Dissolved	**50 ug/L**	1462 ug/L (hardness dep)	40
Manganese, Dissolved, for Class 2A and 2AB	**50 ug/L**	50 ug/L	na
Mercury, Dissolved	**1 ug/L**	0.77 ug/L	ND
Molybdenum, Dissolved (*New Facilities Only*)	**100 ug/L**	300 ug/L	ND
Nickel, Dissolved	**10 ug/L**	52 ug/L (hardness dep)	ND
Oil and Grease	**1 mg/L**	10 mg/L	5.3
pH	**0.1 pH unit**	6.5-9.0 s.u.	7.51
Radium 226, Total Recoverable	**0.2 pCi/L**	5 or 60 pCi/L	1.8
Radium 228, Total Recoverable**	**0.2 pCi/L**	5 pCi/L	1.5
Selenium, Total Recoverable	**5 ug/L**	5 ug/L	15
Silver, Dissolved	**3 ug/L**	3.4 ug/L (hardness dep)	ND
Sodium Adsorption Ratio	**Calculated as unadjusted ratio**		28.7
Sodium, Dissolved	**100 ug/L, report as mg/L**		1290000
Specific Conductance	**5 micromhos/cm**	7500 micromhos/cm	45700
Sulfates	**10 mg/L**	3000 mg/L	20
Sulfide-Hydrogen Sulfide (S2-, HS-)	**0.1 mg/L**	2 ug/L	ND
Total Dissolved Solids	**5 mg/L**	5000 mg/L	3766
Total Petroleum Hydrocarbons	**1 mg/L**		5
Zinc, Dissolved	**50 ug/L**	118.1 ug/L (hardness dep)	ND

**The values listed in the Standard or Limit column are associated with water quality standards (Chapter 1 of Wyoming Water Quality Rules and Regulations) or technology-based effluent limits (Chapter 2 of Wyoming Water Quality Rules and Regulations).*

***This parameter is only required for those discharges located within one stream mile of a class 2 water.*

13. Which geologic formation is the origin of the produced water? ____Muddy aka Newcastle___**note**: Mowry Shale is also perforated which produces no significant water_____

14. Were the above analyses collected from this facility (referenced in item 3)? **Yes** from the bottom of a frac tank.(Roth#1)

xx☐ **YES** ☐ **NO** **NOTE: We intend to run additional analysis of your choosing after we get outfall underway.**

If no, describe origin of samples including well name, location, depth, geologic formation, field, and date sample was analyzed:

_____

15. **For new facilities,** provide the expected (estimated) flow rate from each outfall in barrels per day and million gallons per day, and provide the rationale behind the flow rate **estimate**. _____100 bfpd based on rod pump output_____

_____

Expected date of commencement of discharge. _____pending permit approval, est July-Aug 2014____

For existing facilities, provide actual flow data from each outfall within the last six months

Will discharge be x☐ **continuous** or ☐ **intermittent**?

If the discharge is to be intermittent the following information for each outfall shall be provided:
(I) Number of times per year the discharge is to occur.
(II) Anticipated duration of each discharge.
(III) Anticipated flow of each discharge.
(IV) Months in which discharge is expected to occur.

16. Are any of the required chemical constituents in the laboratory analysis present in concentrations above Wyoming Water Quality Standards or limits as identified in the third column in Table 2, page 5?

xx☐ **YES** ☐ **NO**

If the answer to question # 16 is yes, answer 16a.–16.c below. If no, proceed to question 17.

a. **Which constituents?** ____Selenium and Specific Conductance_____see 16c notes below

b. **Has this constituent been addressed in the response to question 10?** _____no_____

c. **Describe how the exceedance was addressed** **We anticipate improved water quality with retention and formation dewatering time, This well was an injection well in the distant past, The Old Unit Operator injected Twr (White River) Water into the Muddy** Reservoir. We expect the water to clean up, Our neighbor **AOBullock,** is **discharging Muddy water just 370 yards away (ese) . The Local Ranchers often use The Twr as their main water aquifer for home , horses and cattle.**

17. Will blending of fresh water with produced water be used as a treatment option?

☐ **YES** xx☐ **NO**

If the answer to question # 17 is yes, answer 17a.–17.c below. If no, proceed to question 18.

a. What is the anticipated blending rate of fresh water and produced water? _____
Be advised that permit will require water quantity and quality monitoring before and after blending occurs. Also, an automated shutdown system must be installed and maintained on site that terminates the discharge of produced water in the event of the shutdown of the fresh water supply.

b. Provide confirmation from the State Engineer's office of fresh water use.

c. What is source of fresh water to be blended? No surface water source is allowed.

18. 40 CFR Part 435 Subpart E requires that the permittee document agricultural and wildlife uses of produced water. Provide documentation that the produced water will be used for agriculture or wildlife during periods of discharge. Agriculture and wildlife use includes irrigation, livestock watering, wildlife watering, and other agricultural uses. Agricultural and wildlife use documentation includes (but is not limited to) a certified letter from a landowner(s), a formal written statement from a state, federal or local resource management agency, or a formal written statement with supporting documentation from a natural resources or environmental professional accompanied by the credentials of the natural resources or environmental professional. Agriculture and wildlife use documentation must be provided for each outfall included in the application. Agricultural and wildlife certification must be submitted for each outfall's discharge, and must have original signatures.

Facilities permitted prior to June 10, 2002 are exempt from the above requirement. The Wyoming Game and Fish Department has determined that discharges of produced water from WYPDES-permitted oil production units in Wyoming, *existing as of June 10, 2002*, are being used to enhance wildlife propagation and habitat.

☐ This facility was WYPDES or NPDES permitted prior to June 10, 2002

xx☐ Documentation **of beneficial use** is enclosed or has been sent in.

19. The applicant may submit any optional information the applicant wishes to have considered.

1)_This Muddy/Mowry water out fall will comingle with the existing and active Muddy/Mowry outfall SWSW Sec 30 T35N R65W. 2). The surface formation is Twr Tertiary White River, a tuffaceous volcanic banded impervious claystone. The area is a semi badland and often dry as a desert. (see Google map)

Authorized signatories for this application are the following:	
For corporations:	*A principal executive officer of at least the level of vice president, or the manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the overall operation of the facility from which the discharge originates.*
For partnerships:	*A general partner.*
For a sole proprietorship:	*The proprietor.*
For a municipal, state, federal or other public facility:	*Either a principal executive officer or ranking elected official.*

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

William Eucker III

Printed Name of Person Signing

Signature of Applicant

303-813-9303

Telephone

Geologist-Manager- Member

Title

6/4/14

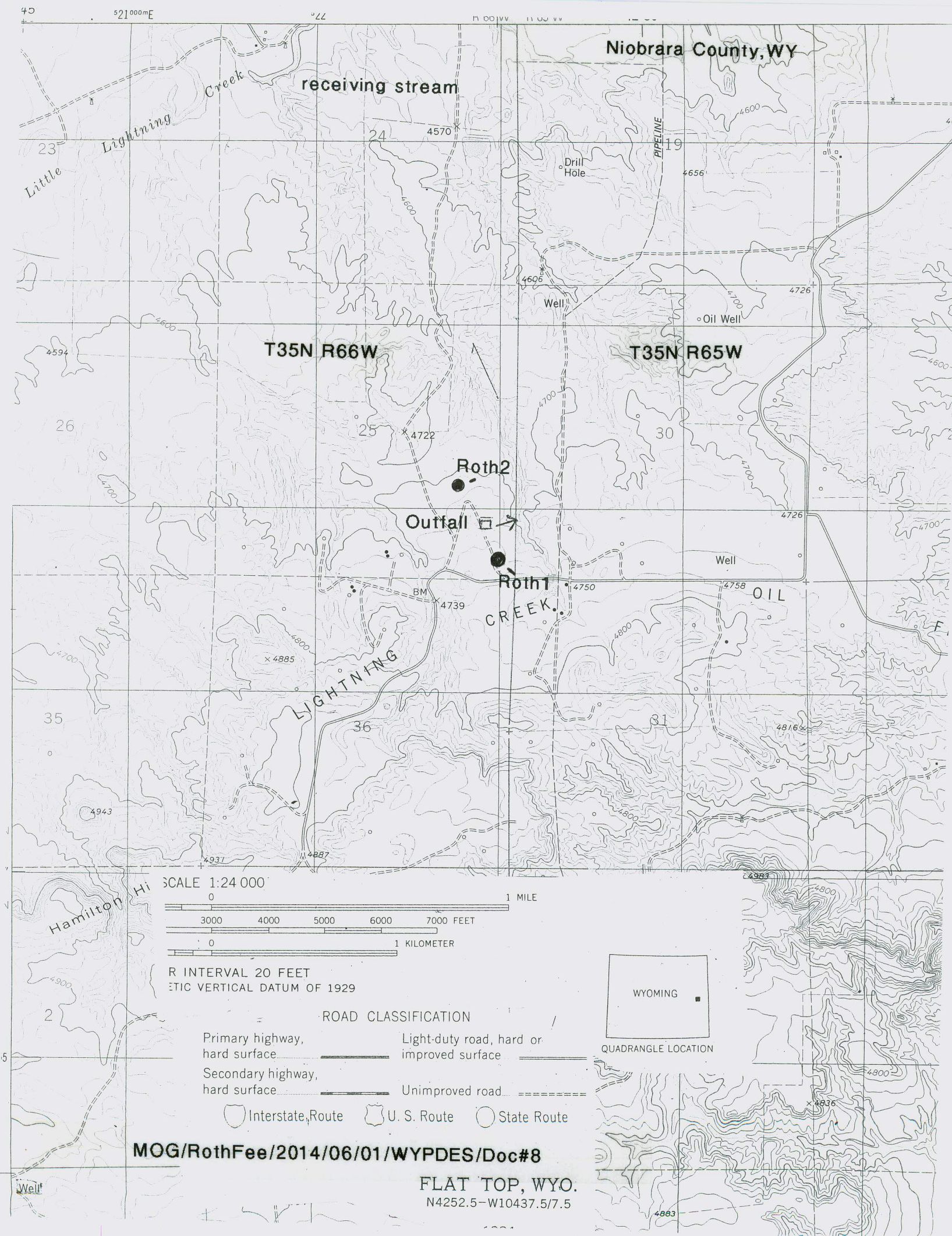
Date

303-813-9304

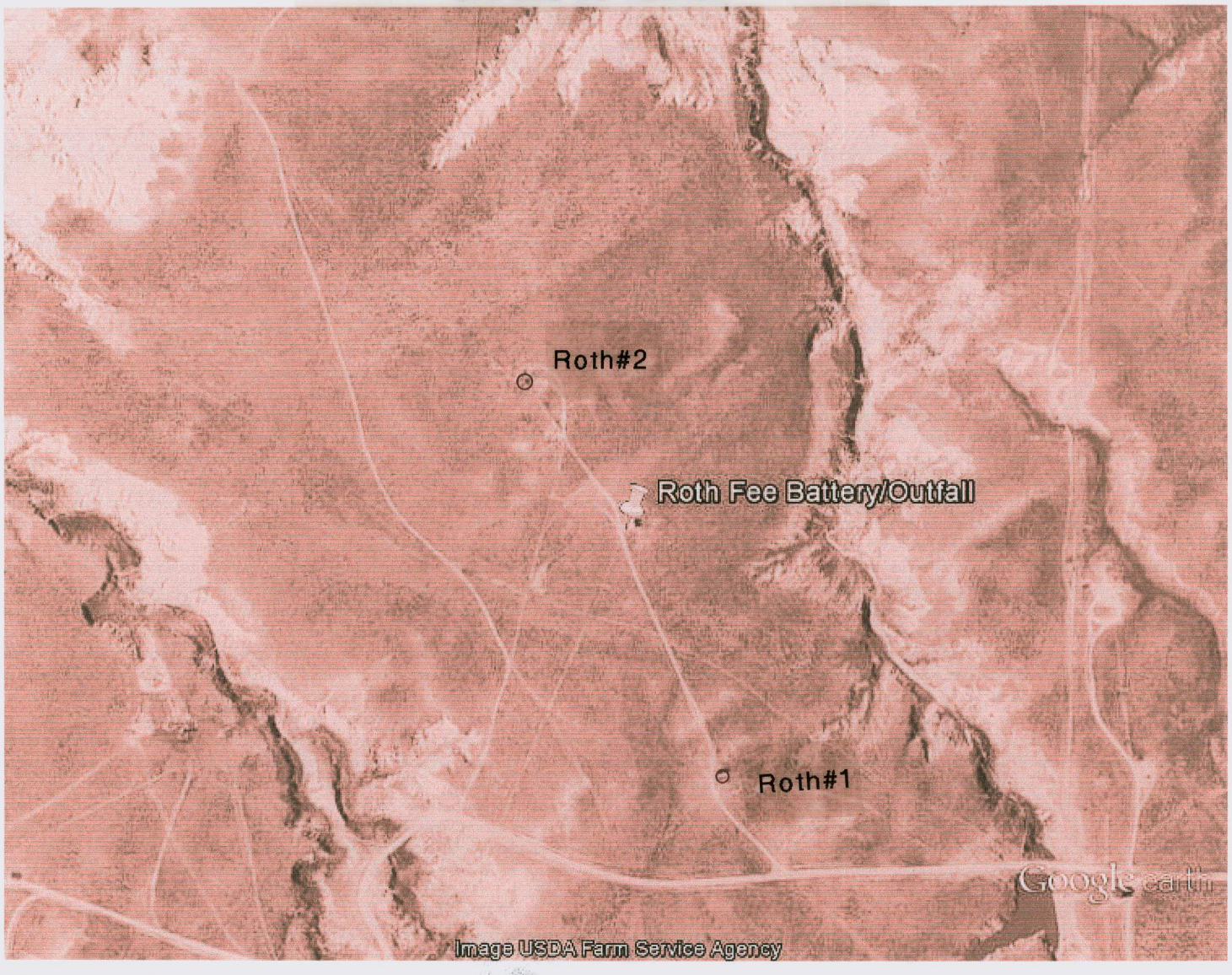
Fax

PROFESSIONAL GEOLOGIST WILLIAM EUCKER III PG 438 WYOMING

Section 35-11-901 of Wyoming Statutes provides that:


Niobrara County, WY
receiving stream
Lightning Creek
Little
PIPELINE
Drill Hole
Well
Oil Well
T35N R66W
T35N R65W
Roth2
Outfall
Roth1
CREEK
OIL
LIGHTNING
BM
SCALE 1:24 000
1 MILE
7000 FEET
1 KILOMETER
R INTERVAL 20 FEET
ETIC VERTICAL DATUM OF 1929
ROAD CLASSIFICATION
Primary highway, hard surface
Secondary highway, hard surface
Light-duty road, hard or improved surface
Unimproved road
Interstate Route
U. S. Route
State Route
WYOMING
QUADRANGLE LOCATION
MOG/RothFee/2014/06/01/WYPDES/Doc#8
FLAT TOP, WYO.
N4252.5–W10437.5/7.5

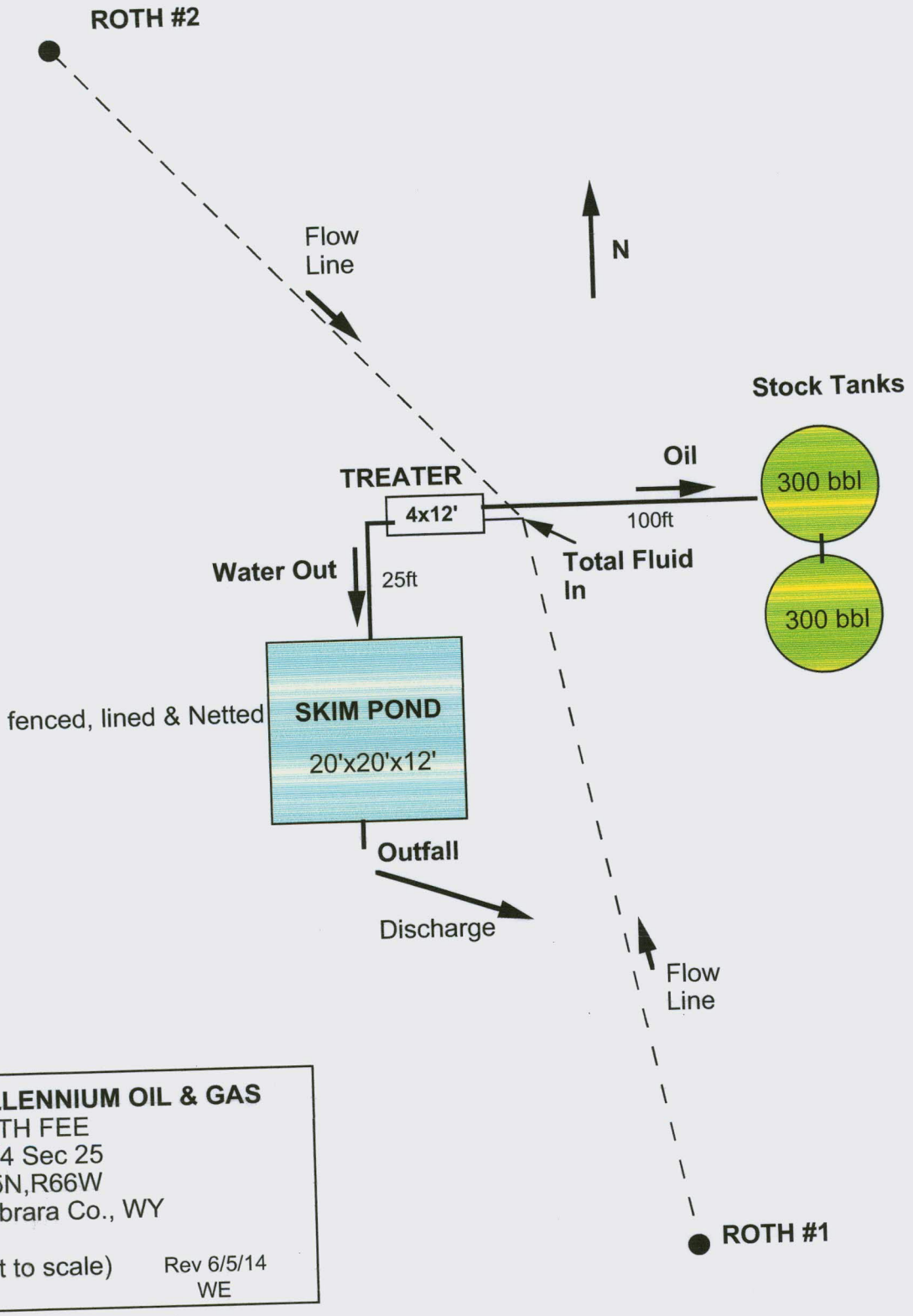
ROTH LEASE
S/2 Sec 25 T35R66



Google earth

feet 2000
meters 600

SITE DIAGRAM



MILLENNIUM OIL & GAS
ROTH FEE
SE/4 Sec 25
T35N,R66W
Niobrara Co., WY

(not to scale) Rev 6/5/14 WE

WAMCO LAB, Inc.

Analysis reported in milligrams per liter unless otherwise stated

Company Millenium Oil & Gas
Well No. Roth 1
NPDES: WY-
County
State: Wyoming

Date: 07/11/13 WO # 11422
Date Sampled: 05/21/13
Time Sampled 2:00
Sampled by: Bud
Date @ Time Rec'd in Laboratory
5/16/2013 @ 1:00 By: Elaine

Parameter	1	Analyzed By	Date Analyzed	Reporting Limits	Method EPA
Total Dissolved Solids	3766	EE	05/23/13	5	160.1
Sulfates, mg/L	20	EE	05/23/13	10	375.4
Chloride, mg/L	950	EE	05/23/13	1	330.1
Hardness (CaCo3) mg/L	715	EE	05/23/13	7	130.2
SAR	28.70	EE	05/23/13		
Sodium, Dissolved ug/L	1290000	DG	05/30/13	0.1	200.7
Calcium, Dissolved mg/L	215	EE	05/23/13	1	215.2
Magnesium, Dissolved mg/L	43	EE	05/23/13	1	130.2
Specific Conduction uMhos/Cm	45700	EE	05/23/13	100	200.7
Fluoride, Dissolved mg/L	1.4	KV	05/29/13	0.1	SM 4500FC
Aluminum,Dissolved ug/L	ND	DG	05/30/13	100	200.7
Barium, Total ug/L	1600	MS	05/30/13	500	200.8
Boron, Dissolved ug/L	1800	DG	05/30/13	100	200.7
Cadmium, Dissolved ug/L	ND	MS	05/29/13	2	200.8
Chromium, Dissolved ug/L	ND	DG	05/30/13	10	200.7
Chromium, Hexavalent mg/L	ND	MZ	05/29/13	0.05	HACH 10218
Chromium as Cr+3 mg/L	ND	CJM	07/05/13	0.05	HACH 10218
Copper, Dissolved ug/L	ND	MS	05/29/13	10	200.8
Iron, Dissolved ug/L	ND	DG	05/30/13	50	200.7
Lead, Dissolved ug/L	ND	MS	05/29/13	20	200.8
Manganese, Dissolved ug/L	40	DG	05/30/13	20	200.7
Mercury, Dissolved ug/L	ND	CS	05/29/13	1	245.1
Molybdenum, Dissolved ug/L	ND	MS	05/30/13	20	200.8
Nickel, Dissolved ug/L	ND	DG	05/30/13	10	200.7
Silver, Dissolved ug/L	ND	MS	05/29/13	3	200.8
Zinc, Dissolved ug/L	ND	DG	05/30/13	10	200.7
Arsenic, Total ug/L	ND	MS	05/30/13	5	200.8
Selenium,Total ug/L	15	MS	05/30/13	5	200.8
Total Petroleum Hydrocarbon	5	CG	05/20/13	1	1664
Oil and Grease	5.3	CG	05/20/13	1	1664 Rev A
pH, Units	7.51	EE	05/23/13	0.01	150.1
Radium -226 pCi/L	1.8 +/- 0.5	EG	05/29/13	0.1	7500-Ra
Radium-228 pCi/L	1.5 +/- 1.0	MK	06/21/13	1	Ga-Tech
Sulfide-Hydrogen Sulfide	ND	EG	05/20/13	0.05	376.1

Remarks: Sample analyzed according to methods approved for wastewater by title 40 CFR part 136
ND - not detected, if present the amount is less than detection limit

Esther Edwards
WAMCO LAB, Inc.

MOG/RothFee/2014/06/01/WYPDES/Doc#8

MATERIAL SAFETY DATA SHEET

OEB 0146 EMULSION BREAKER

SECTION I - IDENTIFICATION

COMPANY NAME..... JACAM CHEMICALS, L.L.C.
EMERGENCY PHONE NUMBER... CHEMTREC 800/424-9300
EFFECTIVE DATE..... 10-1988, Original issue
REVISED DATE..... 10-19-2000, Supercedes issue of 05-24-2000
PRODUCT IDENTIFIER..... OEB 0146
TRADE NAME..... OEB 0146 EMULSION BREAKER
CHEMICAL FAMILY..... MIXTURE OF SOLVENTS/RESINS
CHEMICAL FORMULA..... PROPRIETARY INFORMATION

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS INGREDIENTS	HAZARDOUS INGREDIENT PERCENT	TLV (Units)	HAZARDOUS INGREDIENT CAS/NA/UN NUMBERS
HEAVY AROMATIC NAPHTHA	**	Not Determined (N/D)	67891-79-6
METHANOL*	**	200ppm	67-56-1
XYLENE*	**	100ppm	1330-20-7
ETHYLBENZENE*	**	100ppm	100-41-4
CUMENE*	**	50ppm	98-82-8
NAPHTHALENE*	**	10ppm	91-20-3

*SARA TITLE III
Sec. 313 Chemical

**Proprietary Data

All Ingredients TSCA Listed

SECTION III - PHYSICAL DATA

BOILING POINT..... N/D
FREEZING POINT..... N/D
VOLATILITY/VOL(%)..... N/D
MELTING POINT..... Not Applicable (N/A)
VAPOR PRESSURE..... N/D
VAPOR DENSITY (air=1).... N/D
SOLUBILITY IN H20..... Negligible
ODOR AND APPEARANCE..... Hydrocarbon odor/Dark amber liquid
SPECIFIC GRAVITY..... 0.92

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EVAPORATION RATE..... N/D
pH..... N/D

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASHPOINT AND METHOD OF DETERMINATION.....	Calc. 100 F
LOWER EXPLOSION LIMIT(% BY VOL).....	N/D
UPPER EXPLOSION LIMIT(% BY VOL).....	N/D
MEANS OF EXTINCTION.....	Dry chemical, foam, carbon dioxide
FOR FIRE.....	Use NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Use a smothering technique to extinguish this type of fire. Heat may build pressure, rupturing closed containers. Use water spray to cool fire-exposed containers and disperse vapors. Avoid spreading burning liquid with water used for cooling purposes. Vapor/Air explosion hazard. Vapors are heavier than air and may travel along ground to distant ignition source where they may ignite, flash back, or explode.
.....	

SECTION V - HEALTH HAZARD DATA

ODOR THRESHOLD..... N/D

ACUTE OVER EXPOSURE EFFECTS.....	SKIN: Irritation, erythema, edema, drying, cracking, blistering, defatting, dermatitis. EYES: Irritation, redness, burning, stinging, tearing, swelling. INHALATION: ANESTHETIC. Irritation of respiratory tract, chest discomfort, mucous membrane irritation, coughing, difficulty breathing, Central Nervous System depression, pneumonitis, pulmonary edema. Concentrated exposure may cause symptoms of lack of oxygen, leading to collapse, death. Symptoms of CNS depression include headache, dizziness, drowsiness, lethargy, loss of coordination, impaired memory, visual disturbances, nausea, vomiting. INGESTION: Gastrointestinal irritation, severe nausea, CNS depression, blindness, collapse, coma, and death.
SPECIFIC FIRST AID PROCEDURES.....	SKIN: Immediately remove contaminated clothing and shoes. Wash affected area with plenty of soap and water. Obtain immediate medical attention. Launder clothing and clean shoes before reuse. EYES: Immediately flush with plenty of water for at least 15 minutes, retracting lids frequently. Obtain immediate medical attention. INHALATION: Remove to fresh air immediately. Give oxygen or artificial respiration as needed. Obtain immediate medical attention. INGESTION: If conscious and alert, give water or milk to drink to dilute stomach contents; DO NOT induce vomiting. If spontaneous vomiting occurs, keep head below hips to prevent aspiration, and give liquids again. Obtain immediate medical attention. Never attempt to give anything by mouth to an unconscious or convulsing person.

SECTION VI - REACTIVITY DATA

CHEMICAL STABILITY.....	Stable
CONDITIONS OF REACTIVITY.	Heat, sparks, flame, static electricity, all sources of ignition.
INCOMPATIBLE MATERIALS...	Oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS.....	Carbon dioxide, carbon monoxide, oxides of nitrogen and sulfur, aldehydes.
HAZARDOUS POLYMERIZATION.	Will not occur.
POLYMERIZATION AVOID.....	N/A

SECTION VII - SPILL OR LEAK PROCEDURE

LEAK AND SPILL PROCEDURES	Wearing appropriate personal protection equipment, shut off leak if safe to do so. Eliminate all sources of ignition. Contain by diking with inert material to prevent entering drains, sewers, surface or ground waters, and soil. Using explosion-proof or hand pump, pump large spills into DOT-approved waste containers. Absorb residues and small spills with inert material and sweep into DOT-approved waste containers.
WASTE DISPOSAL.....	Dispose of in accordance with applicable local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION

RESPIRATORY PROTECTION...	If exposure exceeds PEL/TLV, use NIOSH/MSHA-approved self-contained breathing apparatus.
VENTILATION.....	Special ventilation may be required if operating conditions result in release of vapors exceeding PEL/TLV.
PROTECTIVE GLOVES.....	Impervious PVC-coated, rubber, or neoprene.
EYE PROTECTION.....	Chemical splash goggles, with full face shield in high exposure situations. DO NOT wear contact lenses.

OTHER PROTECTIVE EQUIPMENT.....	Impervious apron or coveralls in high exposure situations, long sleeves, and boots. Safety shower, eye wash fountain, and lavatory should be readily available.
HANDLING PROCEDURES AND EQUIPMENT.....	Store in tightly closed, properly vented containers in a cool, dry, well ventilated area away from ignition sources and incompatible materials. "Empty" containers retain hazardous residues and may explode if heated sufficiently. Do not cut, weld, braze, solder, drill, grind, pressurize, or expose such containers to heat, flame, static electricity, sparks, or any source of ignition. Store drums in bung-up position. Protect from physical damage. Carefully vent internal pressure before beginning transfer. Electric equipment should conform to national electric code. Use only non-sparking tools. Avoid inhalation of vapors and personal contact with product.

SECTION IX - SPECIAL PRECAUTIONS

HAZARD CLASS.....	3, FLAMMABLE
DOT SHIPPING NAME.....	FLAMMABLE LIQUID, NOS (PETROLEUM SOLVENT), PG III
REPORTABLE QUANTITY (RQ).	N/A
UN NUMBER.....	UN#1993
NA #.....	N/A
PACKAGING SIZE.....	5 Gallon/55 Gallon/Bulk

FOOT NOTES

NFPA CLASSIFICATION:

HEALTH:	2*
FLAMMABILITY:	2
REACTIVITY:	0
SPECIFIC HAZARD:	N/A

*Chronic Health Effects

REFERENCES

MATERIAL SAFETY DATA SHEET

OEB 0146 EMULSION BREAKER

---------- N O T I C E ----------

All information provided in this Material Safety Data Sheet (MSDS) is based upon data obtained from the manufacturer and/or recognized technical sources and is believed to be reliable as of the date hereof. JACAM Chemicals, L.L.C. provides no warranties, either expressed or implied, and assumes no responsibility for the accuracy or completeness. Conditions of use are beyond JACAM's control and therefore users are responsible to verify this data under their own operating conditions to determine whether this product is suitable for their particular circumstances. Users assume all risks of the use, handling, and disposal of this product, or from the publication or use of, or reliance upon, information contained herein. This MSDS relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process. JACAM knows of no medical condition, other than those noted in this MSDS, which are generally recognized as being aggravated by exposure to this product.

* * * END OF MSDS * * *

MOG/ROTHFEE,/2014/06/01 WYPDES/Doc#8

Apd File	Casing	Completions
Change of Operator	Display All Records	Geological Markers
Production/Injection	Producing Intervals	Sales
Tax Incentives	Treatments	Logs
DownLoad All Records	Down Load Sales	Water Analysis

Google Earth AllTopo Disclaimer Codes Images

Api Number
49-027-05142

Operator
MILLENNIUM OIL & GAS LLC

Well Name
LIGHTNING CREEK UNIT 14

Field
LIGHTNING CREEK

Surface Location
330 FSL AND 330 FEL (SE SE)

Section
25

Township/Range
35 NORTH 66 WEST

Lat
4

Lease No.
PATENTED

Permit Approved
01/25/1957

Completion
02/04/1957

Spud
01/24/1957

Target Formation
NEWCASTLE

Total Depth
2210

Plug Back Depth

Elevation

Elevation KB
4750

Form 2 Formation
NEWCASTLE

Form 2 Formation
NEWCASTLE

Form 2 Formation
MOWRY

Well Class
O

Last Reported Status
PO

Status Date
03/2013

Production Status
PR

Production Status Date
02/2014

Bond Release Date

County
NIOBRARA

Basin
POWDER RIVER

Prod Oil Bbls
469

Prod Gas Mcf
0

Prod Water Bbls

Last Time Produced
12/2013

First Produced
02/1957

Last Form 2
02/2014

Inj Water Bbls
174,314

Last Time Injected
05/1983

Note: This well was converted into an injection well (late 50s)
White River Water was injected into the Muddy (Newcastle)
We intend to produce this well and dewater the formation
The Twr water was fresh. **04/22/2014**

MOG/RothFee/2014/06/01/WYPDES/Doc#8

MILLENNIUM
OIL & GAS LLC

6/5/14

RECEIVED
JUN 09 2014
WATER QUALITY DIVISION
WYOMING

Roland,

Here is my Application for our Roth fee discharge Permit. This would be our 8th. Let Me know if you have any questions. I'll be in and out all summer but will have cell com. 303-98-1725 and email billeucher@aol.com. Note our Neighbor Ant Bullock discharges Muddy Water Adjacent to this lease (see google pic) Lwr Rt. Thanks for your professional support.

respectfully
Bill Eucher Mgr Mbr

975 GRANT STREET • DENVER • COLORADO 80203
303 • 813 • 9303

ATTN: Roland Peterson
WYPDES Permits Section
Department of Environmental Quality
122 West 25th Street,Herschler Building
Cheyenne, Wy,82002

RECEIVED
JUL 07 2014
WATER QUALITY DIVISION
WYOMING

Dear Mr. Peterson

I am writing in regards to a permit application by Millennium Oil and Gas to discharge water from the Roth lease in the SESE Sec 25 T35 R66W, WYPDES #WY0095508. I am the land owner and I am in support of this action.

My livestock, as well as wildlife, would get beneficial use from the discharge water, as there is not any water on that side of my pasture.

Thank you

Justen Miller